Volume 5 Number 9 August 1983

denver apple pi Seed

newsletter of the apple pi computer users' club

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Denver, CO 80217

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BEEN TO A MONTHLY MEETING LATELY ?

They are most Entertaining !

See you Sept. 1st

denver apple pi Seed

APPLE PI
P.O. BOX 17467
DENVER, COLORADO 80217

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VICE-PRESIDENT
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TREASURER
Dennis Lunt . . . . . (303) 823-6200
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$20.00 . . . . . ¼ Page
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1983 SEPTEMBER 1983

SUN	MON	TUE	WED	THU	FRI	SAT
NM 6	FQ 13	FM 22	LQ 29	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

September 1st - General Meeting
September 4th - Swap Meet
September 7th - Board Meeting

MEMBERSHIP INFORMATION
$10 APPLICATION FEE AND $18 PER YEAR DUES

APPLE PI is an Apple Computer Users Group - not affiliated with Apple Computer, Inc. - that provides many member benefits, some of which are:

MONTHLY MEETINGS-

On the first Thursday of each month at 7:00 p.m. APPLE PI holds its general meeting at the Greene Center, Colorado School of Mines Campus, Golden, Colorado. This meeting is a combination of an informational meeting, new product announcements, and a short business meeting. The members are given an opportunity to buy computer supplies a little above cost. Software products are given away as door prizes.

On the Sunday following the general meeting there is an informal meet which is usually held at the home of a member, the location of which is announced in the newsletter and at the general meeting. This meeting is from 10:00 a.m. until 3:00 p.m. and provides a more informal environment to seek or give advice to fellow members and get copies of programs from the APPLE PI Library. Both of these meetings are open to the general public but only members have access to products that are sold.

PROGRAM LIBRARY-

APPLE PI currently has a library of 8,000 programs. All current disks are in 16 sector (3.3, Pascal, CP/M) format and are available to any member. APPLE PI Members can obtain copies from the library:

1) By coming to the monthly informal meeting (swap meet);
2) By written request to the club librarian (at any meeting or by mail);
3) By electronic mail on APPLE PI's bulletin board system:

When requesting copies, please include the following information:

a) Your Name, Address, and Phone number;
b) Disk Category and Volume Number;
c) Blank Diskette(s) or request to utilize a new disk (member will be charged $2.50 for the new disk);
d) Copy fee ($1.00 per diskette side unless you donate a program you have written at the same time and fill out a Progam Submission Form). Only complete sides of disks will be copied.
e) Instructions on how the disks are to be returned, i.e., at the next meeting, by mail, etc. (IF RETURN IS TO BE BY MAIL PLEASE BE SURE TO INCLUDE A STAMPED, SELF-ADDRESSED FLOPPY DISK MAILER, AND $2.50 TO COVER SHIPPING COSTS).

DISK OF THE MONTH-

Each month a collection of some of the best programs donated to APPLE PI during the preceding month are made available. The DOM can be purchased at any group meeting or by mail.

DUES-

Current membership dues are $18.00 per year, with a one-time application fee of $10.00. Checks should be made payable to APPLE PI.

PRES. STUFF

FROM YOUR CLUB PRESIDENT

There are only a couple new things to announce since last week. First, we are very sad to lose an outstanding club assistant, John Robertshaw. During the time he was our treasurer's assistant, he did a great deal more than he was asked or was expected of him. John responded to the job with enthusiasm, innovations, and an unusual sensitivity to the needs of the membership. We'll all miss you John; good luck in LA!

Since then, Rich Waite gleefully made the mistake of taking Johns place. Hooray for Rich! I give him 2-3 months before the job drives him as crazy the rest of us.

Rumers that the club president can't spel r grately xagerated. (All speling mestakes are the fawlt of the president's proof-reeder, Patti)

The over-achiever of the month award has to go to Bob & Trent Hein. Not only did they manage the library last month, but they also put together last months Seed, played host to the swap meet, and threw a great party for the officers! Whew! Let's hear it for Bob & Trent!

Les Shaw recieved about 100 filled out directory questionaires at the last general meeting! That's great but it's still only 1/5 th of the club. Remember, the only way to be sure to get a copy of the completed directory as soon as it's done is to fill out a quesionaire! Thanks!

- Dave Eisler

TELECOMMUNICATIONS

DENVER BBS NUMBERS

Apple Pi	469-7541
Aurora-Net	343-8401
The Controller Board	690-9423
GBBS II	693-1064
Lakewood RCPM/RBBS	985-1108
The Neutral zone	985-9184
Off the wall	443-3367
PETULA	232-8509
RCPM/RBBS	499-9169
Remote North Star	444-7231
TBBS#1 (Apparat)	741-4071
TBBS#2 (UFONET)	278-4244
TBBS-Software Review	695-4518

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There is a free national bulletin board for micro computer users through National Bureau of Standards. Dial (301) 948-5717 to try the bulletin board. You can call John Junod or Lynne Rosenthal with NBS at (301) 921-3485 for assistance. The exchange uses standard 300 baud protocol and the only cost to you is your long distance call.

For corrections, contact T.R. Hein at (303) 424-8357
or Fran Baxter at (303) 989-5139

SECRETARY'S REPORT

(AUGUST MEETING)

President Dave Eisler opened the meeting with an invitation for member participation in Club activities including our newsletter committees (1.Group for writing and selecting articles, 2.Group for copy layout, and 3. Group for assembly and mailing) or the formation of Special Interest Groups. Call Dave at 694-6217 and get involved! He also announced the next board meeting (August 10th) and that officer-at-large Ron Heath will start meeting with a newcomers group in September.

Dave expressed the Club's appreciation to John Robertshaw who has done an excellent job as supply sales assistant to our Treasurer. John is being transfered to Los Angeles and will be missed. This important function is being assumed by Richard Waite.

Vice President Bill Dowall announced the August program: a demonstration of Apple's new LISA computer and announcements on the openings of the Program Store (in September) and the Microcomputer Academy. He also welcomed John Horning representing the Apple distributor, Thorson Rocky Mountain Inc.

Treasurer Dennis Lunt summarized his report which is included in this issue.

Secretary Dave Nelson reported on the mail box, open for review by members at our meetings. Dave will have newsletters from our Newsletter Exchange available for review by members at the SWAP meet. He asked that members indicate articles they would like to see reprinted in the SEED.

Librarian Bob Hein reported that he and his assistants, Greg Schaefer, Dan Bentz, Bob Gaiser, and Trent Hein again have several Disks-of-the Month (CP/M, BASIC, and Pascal) Bob also announced that the Club has been authorized to distribute "one-key DOS" and "Zippy DOS" to our members for their examination and possible purchase. Trent Hein has prepared a new label program for use with several printers (instead of just the Epson).

Les Shaw, who has volunteered to prepare a Directory of Apple Pi members, explained the purpose of the directory, a guide to members and their interest areas designed to promote contacts between members. A questionnaire in the August SEED provides needed data while allowing for privacy by making addresses or phone numbers optional. Les will analyze the responses, starting in mid-September. Call Les if you have questions or if you are willing to help him (his home number is 449-0946, or days, 441-4847).

Bob Bigelow announced a Franklin Computer Group is meeting in Aurora. For more information call Dorsey Hudson at 757-1680.

Door prizes were donated by the Computer Connection Ltd. of Boulder. Ed Arnick received the game Three-Mile Island and E.N. McKittrick received Calc-Star.

Vice President Dowall introduced Bob Efron of the Program Store. Bob announced an early September opening in the Southwest Plaza Mall. He offered a 10% discount to Club members.

John Kauffman, Director of the Microcomputer Academy announced the opening of his school. Brian Raymond, Program Director, discussed four course groupings: programming languages, applications programs, computer literacy and computer hardware.

countinued on page 9 . . .

ONE·KEY DOS

Bob Hein, Librarian

One-Key DOS is a set of compatible modifications that improve and enhance screen-handling and catalog display functions of DOS. A single digit keyin (+return) will generate one of eleven DOS commands and position the cursor at end-of-text. A new catalog "masthead" contains space for 56 characters of disk identification.

It is compatible with standard DOS and Diversi-DOS. Or, you can use the "zippy" quick loader DOS which (if on one has 're-DOS'd it) is on the One-Key DOS disk. One-Key DOS is Apple IIe ready and supports the up/down arrow keys and the "tab" key as well. Details of these features are expanded upon in the "features file" on the disk.

FEATURES OF ONE-KEY DOS:

A. TWO TITLE LINES FOR THE DISK;

-The top lone shows both volume # and free sector count plus space for 18 characters of custom text.
-The second line allows 38 more characters of (inverse) custom text.

B. CATALOG FUNCTION

-":" generates "catalog". Hit return to execute.
-Any key will pause the listing immediately.
-The space bar will release to normal DOS 'page-at-a-time' scroll.
-Return will pop the next file into view.
-"<-"will exit the listing right now.

C. VERTICAL CURSOR POSITIONING:

-Up-scrolling: "-" key.
-Down-scrolling: Return and "<-" keys.

D. HORIZONTAL CURSOR POSITIONING:

-CTRL-I repositions the cursor to the end-of-text (EOT).
-"<-" and "->" work normally

E. ONE-KEY COMMAND GENERATION:

0 = DELETE	1 = RUN
2 = BRUN	3 = LOAD
4 = BLOAD	5 = SAVE
6 = BSAVE	7 = EXEC
8 = LOCK	9 = UNLOCK

F. Buyers of One-Key DOS receive indentifying decals for these keys.

G. Modifications to the DOS image for One-Key DOS are virtually transparent and contained wholely withing existing DOS memory ($9D00 - $BFFF). There is not "hiding it under HIMEM" or other obtrusive technique required of users.

Get your copy of One-Key DOS from Apple Pi at the next general meeting or Swap Meet. I think you will find it a worthwhile investment.

APPLE·PI 'BUG' OF THE MONTH

Have you ever seen a

]

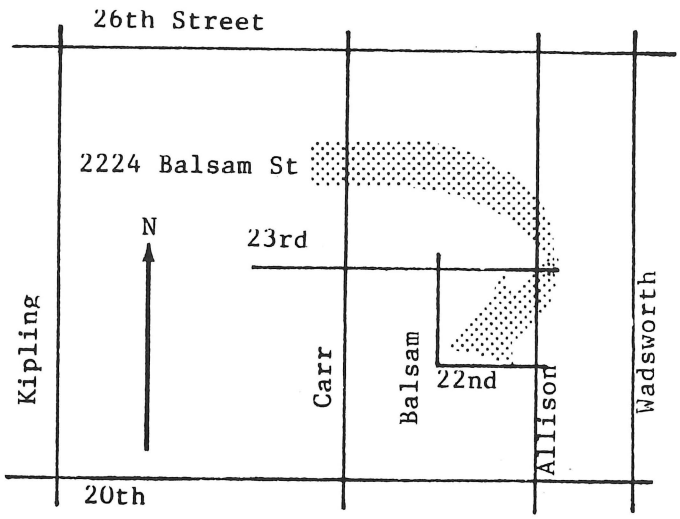
prompt on your Apple IIe? According page 66 of the the new IIe DOS Users Manual, that's the proper Applesoft prompt. There must be a bug in all the early ROMs!

September "SWAP" Meet

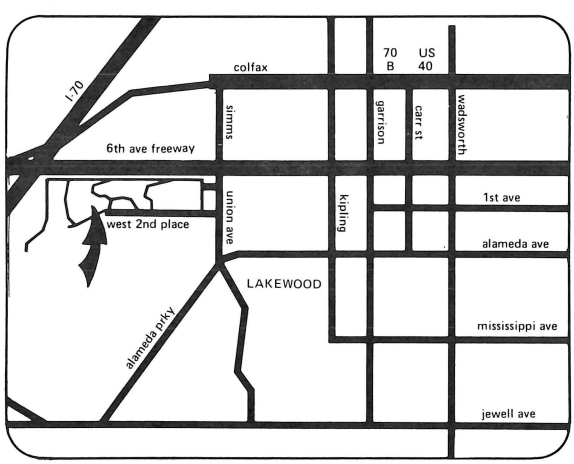
Have you been to one of our SWAP MEETS lately? If not, you are missing a good chance to meet other members on an informal basis. It's a nice time to get to know one another and find someone who can give you a hand with any problems or questions you might have.

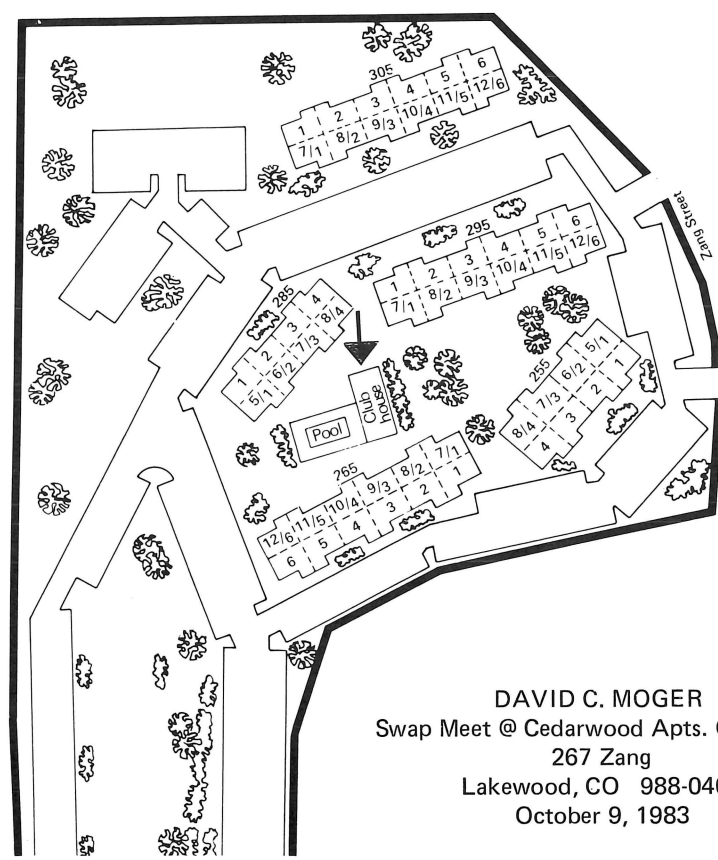
We try to move the SWAP MEET to different parts of the Denver Metro Area. If you have access to a large recreation room, clubhouse or other location suitable for a SWAP MEET please contact Dave Moger at 988-0401 and work out a suitable date with him.

September's SWAP MEET will be held at the home of Dave and Trudy Nelson, 2224 Balsam Street, Lakewood, Co 80215. As usual it will be on the Sunday following the meeting, September 4, from 10am to 3pm. If you get lost call Dave or Trudy at 238-4014



October





DAVID C. MOGER
Swap Meet @ Cedarwood Apts. Clubhouse
267 Zang
Lakewood, CO 988-0401
October 9, 1983

!!! ATTENTION !!!

The September General Meeting will be of vital importance to all members of Apple Pi. Issues concerning club bylaws, seed policies, and removal of the current editor will be brought before the membership for vote.

The board of directors hold the following views, in disagreement with the editor:

1) Responsibility and control of the seed rests with the Board of Directors. The Board is, in turn, controlled by the membership.

2) Members should recieve a Seed just before every General Meeting.

3) The board is concerned about the cost of the Seed, and a possible conflict of interest.

Seed Costs	MAY	JUN	AUG*	JUL*
copies	550	550	600	
pages/copy	18	12	16	
print cost$	512	425	318	
postage	$ 80min	90min	44	
TOTAL COST	$592	$515	$362	

*=Seeds produced by the Board

4) All materials purchased by the club, such as newsletters & magazines, should be sent to the clubs' PO box.

5) The club's PO box, not the editor's address, should be used as the return addrss for the Seed.

6) Bulk mailing of the Seed should be tried.

7) The editor does not need a monthly copy of the membership data disk.

8) The editors responsibility is limited to producing the Seed. The secretary is responsible for Seed mailing.

9) Only the secretary should send out Apple Pi membership renewal notices.

10) Plenty of extra copies of the Seed should be printed, including 10 copies for each store member.

The board is particullarly disturbed by the one page July Seed, which contained personnal attacks against members of Apple Pi.

You will be able to give your views in a full discussion of these issues at the September general meeting. Please plan on attending.

Next Meeting is September 1st

FOR SALE
APPLE PARALLEL INTERFACE
Microtek model RU-611C
works fine $30
(incompatable with pascal)
Forrest Lowe
620-1316 day 333-7828 eve

IS YOUR JOB DRIVING YOU HALF CRAZY?!?!

Why stop there? Focus your energy! Go all the way! Join the loons who help out around Apple Pi. Have a good time while going completely mad!

It can take as much or as little time as you like. Total insanity within one year quaranteed. Be part of Denver's number one Apple club! Just call or talk to any officer.

Remember, everything that gets done in Apple Pi is done by volunteers. The club depends on volunteers. There are alot of fun things needing to be done, like these:

SWAP MEET HOSTS:
Not only do we need places to hold the swap meets, but it would be nice to also have separate people prepare and bring small refreshments/snacks like chips, dip, cheese, fruit, or anything. What would you like?

CLASS COMMITTEE:
Organize classes for members. All kinds. Charge nominal fees to students. Make the teachers rich.(?!) Committee members take classes free? Think of the interesting people you'd meet, and how much people would appreciate the chance to teach or learn!

SEED COMMITEE:
REPORTERS! - Could you be a newsletter scanner? (read newsletters for free!) Could you handle Seed advertising? (easy!) Maybe you could write small articles about our business members. (meet important people and get inside information!) How about starting a question and answer forum in the Seed? (Of course, you wouldn't have to have all the answers yourself!) And we sure could use your opinions on things you've bought. (Your review would be a big help to others!) We're open to anything you'd like to do.

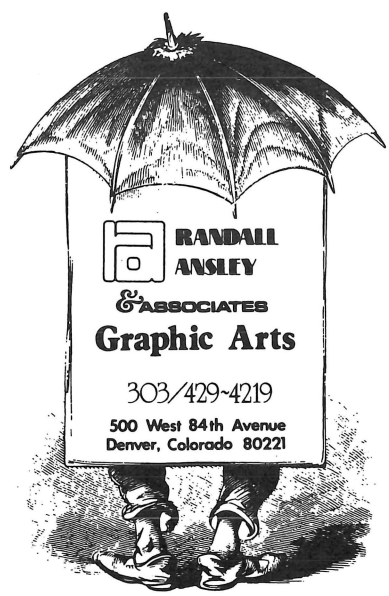
CUT & PASTE - Work the summitted articles into a "camera-ready" Seed.

PRODUCTION - Help staple fold, label, stamp, run to the post office ...

COOLIE LABOR POOL - Help out with odd jobs.

I look forward to meeting you.
Thanks!

D. Eisler



This month the SEED was stuck together by this guy

(a member)

****

Thank you!

The Denver Apple Pi Users Group wishes to gratefully acknowledge the support of the following businesses that have purchased a business membership:

COLORADO COMPUTER SYSTEMS, INC.
3005 W. 74th Ave.
Westminster, CO 80030
(303) 426-5880

COMPUTER VIDEO CONCEPTS
P.O. Box 35
Evergreen, CO 80439
(303) 674-2385

COMPUTERLAND OF NORTH DENVER
8749 Wadsworth Blvd.
Arvada, CO 80003
(303) 420-1877

COMPUTERLAND OF DENVER
2422 S. Colorado Blvd.
Denver, CO 80222
(303) 759-4685

NEIGHBORHOOD COMPUTERS
13045 W. Alameda Parkway
Lakewood, CO 80228
(303) 988-9140

THE COMPUTER LINE
1136 S. Colorado Blvd.
Denver, CO 80222
(303) 758-3261

When you visit any of these stores, let them know that you are an Apple Pi member, and tell them you appreciate their support.

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$ $ $ $

JULY '83
Treasurer's Report

Balance Forward From 6/8/83	$5,148.52
New Memberships	644.00
Renewals	252.00
D.O.M. Sales	450.00
Library Disk Copying	164.00
Advertising	
Sale of Supplies	2,730.50
Interest Earned	38.36
Other Income	498.70 EXPENSES
Supplies;	
Other Income; 498.70 EXPENSES	
Other Income; 498.70	
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JULY '83
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Other Income	498.70
EXPENSES	
Supplies	$4,085.39
Postage	37.40
Printing	440.40
Equipment	1780.21
Bank Charges	37.06
Operating Supplies	32.08
Memberships/Subscriptions	20.00
Bad Checks	20.00
Balance as of 8/1	$3,473.54

*As reported at the membership meeting, the bank did not agree with my calculated book balance. This discrepancy was added to the books as other income.

Transition to the automated bookkeeping system is close but no cigar, yet. I sure hope it takes effect soon, because doing this manually is an awsome task.

We are initiating an inventory proceedure for the tracking of supplies for resale and diskettes used to generate D.O.M.'s and library programs. The task too is cumbersome and hopefully the light will come on soon.

Respectfully submitted,
Dennis Lunt, Treasurer
August 10, 1983

SECRETARY...

From page 3...

Classes, which will proceed at an individual's own pace, will consist of about 10 students (each using a computer) at an average cost, per student, of about $10. an hour. The Academy is located at 2149 Clermont in Denver.

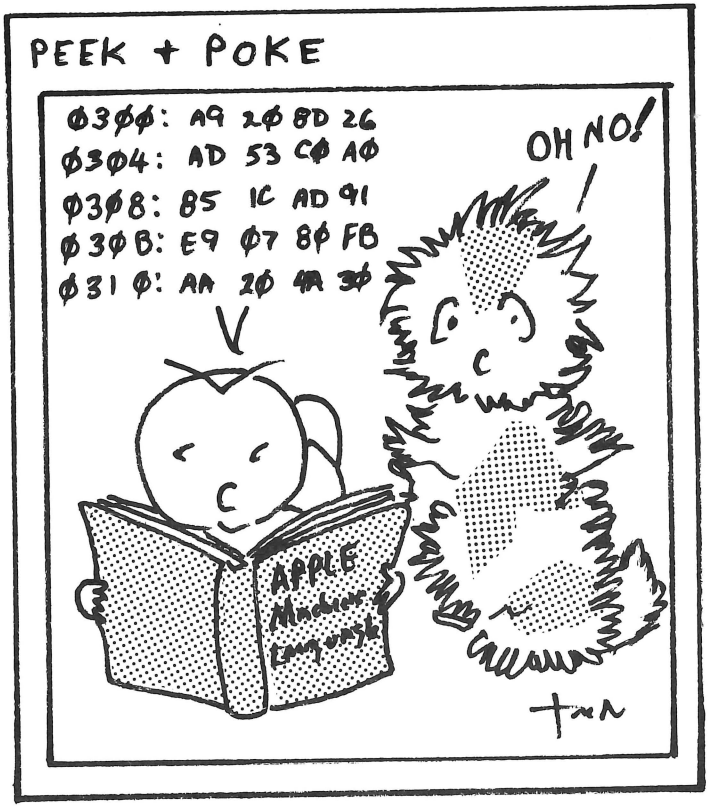
The main program consisted of a demonstration of the LISA by Computer Connection of Boulder. Frank Richardson, Chief Executive Officer, Joseph Inatome, Director of Sales, Phil Adam, National Accounts LISA, Dale Anderson, Service Representative, and Jack Quinn, Technical Representative, came to show us this versatile and fast machine. Demonstrations of LisaCalc, LisaProject (Schedules, PERT/CPM), LisaDraw (charts, floorplan graphics), LisaList, LisaWrite, and discussions of LisaTerminal and AppleNet (communications) were informative for our members.

Tips

by Al Peterman

Shift-key Mod

If you want the shift key mod, but also like to use the game I/O port for paddles or joysticks, there is a better place to connect the wire from the keyboard. The chip directly in front of the game socket (H14) is a 74LS251. Pin 1, which is the front right pin of H14, is connected internally to pin 4 of the game I/O socket. You can connect to this pin 1 either with a mini clip such as Radio Shack 270-370 or by using a thin wire inserted directly into the socket with the chip re-installed on top of the wire.



APPLE TRICKS

By CRAIG CROSSMAN

(Reprinted from THE ABACUS II, Feb 1980)

Here is an 'Apple trick' from Craig Vaughn of Peripherals Unlimited in Signal Hill, California. This is a way of making your Applesoft program UNLISTABLE. It is really a clever method and quite easy to do.

First, write or load the program you wish to make unlistable. Next, place a REM statement on line 0. Then type in POKE 2049,1. Try to list your program and see what happens. Then try running it and the program should execute as normally. You just won't be able to list it.

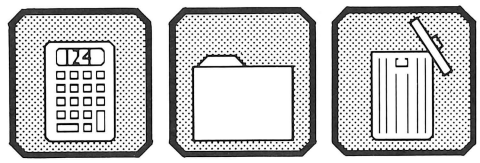
It would be nice to be able to just SAVE it to disk, but unfortunately DOS corrects that byte to its proper format. However, there is a way to overcome that, too. After you have typed in the POKE statement, enter the monitor by typing CALL -151. Next, type AF.B0. You should see two sets of numbers; they represent one byte past the last byte of your program. Note these, remembering that the two numbers represent the low order byte first and the high order byte second. For example, if after typing the above you saw 90 08, the actual location is 0890 (in hexadecimal). Because Applesoft programs begin at $800, this program is $890-800 = $90 bytes long. Then for this example, you would type:

BSAVE program name, A$800, L$90

You have now saved the Applesoft program as a binary file.

To run the program from Applesoft, simply BLOAD the binary program. It will be loaded as an Applesoft program. Do not BRUN it -- it doesn't work. Just type RUN. If you try to list it before running, it won't list, but it will still run. In most cases, the program will also self-destruct upon completion of execution.

TEST YOUR COMPUTER SKILLS:



AN OBJECT LESSON

If you can identify the above objects "and point" you can talk to LISA™, Apple's newest and most powerful computer.

You'll never waste time or money learning to get answers, because FAMILIAR OBJECTS get you answers. Instantly. That keeps life simple. And in business, simple pays.

JUST POINT

When you see the object that has the information you want, just point to it with a smart little gadget called the "mouse." That's it. You just move the mouse across your desk, and the pointer will parallel your moves on the computer screen.

Sound easy? It is. So easy it took Apple 200 person-years to develop software that speaks English, and makes all your familiar office tools electronically accessible.

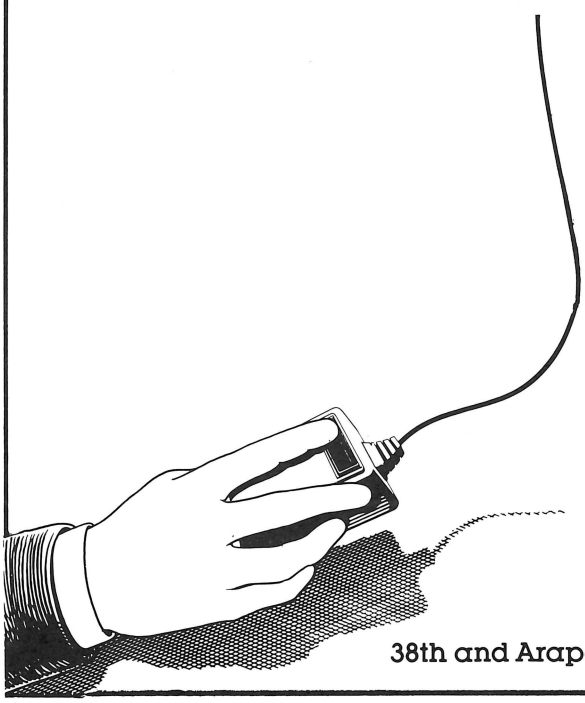
Just point, and you can have spreadsheets, personal database, word processing, business graphics, design graphics or project management — with electronic ease.

You can **have** LISA for $270 a month*, and you'll have a part of us as well. Service. Leasing. Resources. Teaching. It never ends.

GIVE US HALF AN HOUR

And we'll give you a new world. That's how long it takes any of us at Computer Connection to teach you LISA. (If you want to learn even **more**, call for details on our free Harvest House seminar.)

Our offer? Just give us 30 little minutes, and we'll put answers — right in the palm of your hand.



See why Mo Siegel says, "I love my LISA."

apple
Authorized Dealer

Computer Connection

38th and Arapahoe (next to Mr. Software) • 449-8282 • Mon.-Sat. 10am-6pm

*60 month lease, with approval.

LIBRARIAN'S REPORT

August produced the forth Pascal DOM and the second CP/M DOM for the club. In addition, with the August DOM, there are now 37 past DOMs in the club library. All past copies of the DOMs are still available to the membership at all meetings or swap meets. A note of thanks to Bob Gaiser and Greg Schaefer for their efforts in producing the Pascal and CP/ M disks of the month.

As promised, the September DOM has the additional feature of being double sided. In addition to the normal club DOM, the back side has a copy of a graphics program which was received from Softalk which it was decided to offer the membership in its entirety. This makes this disk really an outstanding value. The programs on the basic DOM are as follows:

)enver's Apple Pi Disk of the Month
#038 SEPT 1983 DOM
TR'S APPLES APPLESOFT TOKENS

:ALENDAR	CALENDAR REMINDER	ADDING MACHINE
:TATISTICS	CATALOG HEADER PROG	MASTER CATALOG PROGRA
:V TRIVIA	BLACK FRIDAY	SOLAR TRAVEL
:UBIK	URSA	NAME THE STATES
:IME TEACHER	FLAGS	BULL DOG(PRINTER)
:INEWAVE DEMO	FOOTBALL STATS	RUBIK-RANDOM
:UBIK-PLOT	RUBIK-ROTATE	RUBIK-END
:HAIN	PLANETT	

One-key DOS was a popular item during the August meeting as we sold out of all the copies that had been prepared. It is believed this will be a popular item with the membership. For those of you who would like more information on One-key DOS, see the article on this system elsewhere in this issue of the Seed.

As reported in the August meeting, a Universal Diskette Labeler Disk is now available to the membership. This disk will not only work with the Epson printer, but can also be configured for use with a Prowriter, Gemini, OKidata, NEC or other equivalent printers. Upon booting up the disk, the menu asks you to define your printer type. Once this is done, the disk will always boot to the configuration specified during the first useage.

Bob Hein, Librarian

CATALOG UPDATE..

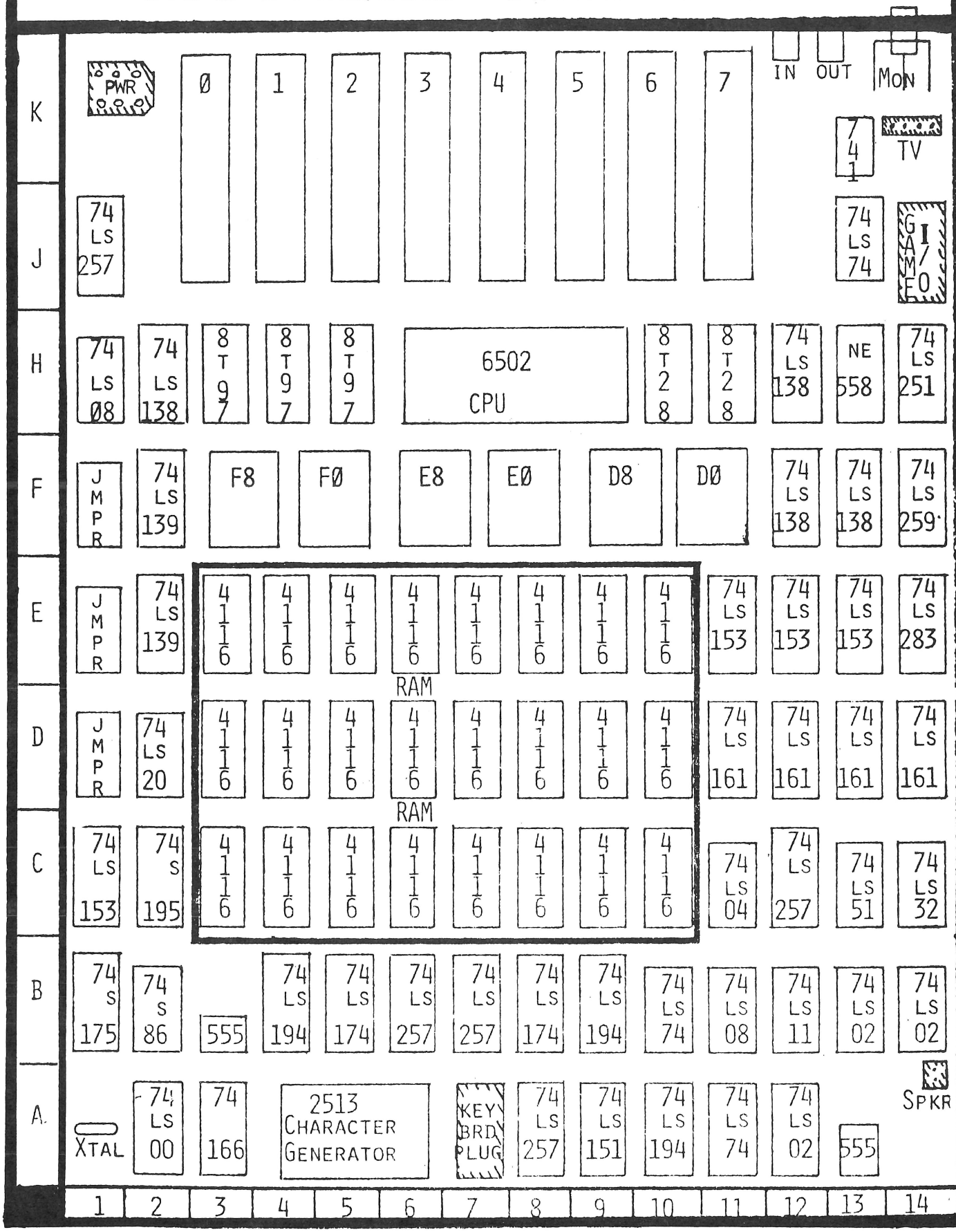
Starting with the September general meeting, the librarian will have a computer available at the general meetings to do updating of library catalog disks. This will be done before the meetings and at the breaks. You must have your catalog disk that was issued by the club to receive the free update. Since the catalog was issued in May, over 2000 programs have been added to the club library. Some of these are adventure disks and graphics programs which were not on the original catalog. Bring your catalog disk and see the librarian at the general meetings or swap meets.

TROUBLESHOOTING GUIDE

BY Dick Peschke
Washington Apple Pi

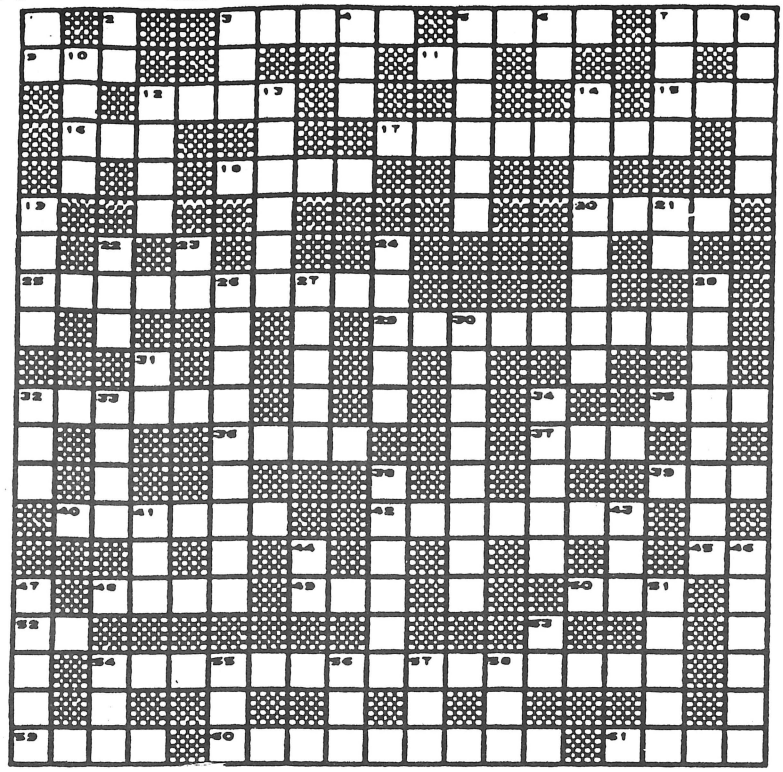
SYMPTOM	REPLACE THESE IC's ONE AT A TIME
1. TOTALLY DEAD SYSTEM (Power Light is ON)	A2 - 74LS00 B1 - 74S175 B2 - 74S86 B13 - 74LS02 C1 - 74LS153 C2 - 74S195
2. NO RESET or NO REPONSE (note: F14 can also be chip # 9334)	B5 - 74LS174 B6 - 74LS257 B7 - 74LS257 B8 - 74LS174 B11 - 74LS08 C14 - 74LS32 E11 - 74LS153 E12 - 74LS153 E13 - 74LS153 F12 - 74LS138 F13 - 74LS138 F14 - 74LS259 H1 - 74LS08 H3 - 8T97 H4 - 8T97 H5 - 8T97 H8 - 6502 H10 - 8T28 H11 - 8T28 H14 - 74LS251 System ROM F3 - F11 System RAM C, D, E
3. NO VIDEO (However, the Speaker does "BEEP")	A2 - 74LS00 A8 - 74LS257 A9 - 74LS151 A10 - 74LS194 B2 - 74S86 B10 - 74LS74 B13 - 74LS02 C2 - 74S195 C11 - 74LS04 D11 - 74LS161 D12 - 74LS161 D13 - 74LS161 D14 - 74LS161
4. NO TEXT MODE (F14 could be a 9334)	A3 - 74166 A5 - 2513 A8 - 74LS257 A9 - 74LS151 A10 - 74LS194 B2 - 74S86 F13 - 74LS138 F14 - 74LS259
5. HIRES or LORES GRAPHICS problems (F14 could be a 9334)	A8 - 74LS257 A9 - 74LS151 A10 - 74LS194 A11 - 74LS74 B4 - 74LS194 B9 - 74LS194 B10 - 74LS74 C11 - 74LS04 C12 - 74LS257 F14 - 74LS259 H1 - 74LS08 J1 - 74LS257
6. RAM PROBLEMS	A2 - 74LS00 B5 - 74LS174 B8 - 74LS174 C14 - 74LS32 D2 - 74LS20 E2 - 74LS139 E11 - 74LS153 E12 - 74LS153 E13 - 74LS153 F2 - 74LS139 H1 - 74LS08 RAM in Rows C, D, and/or E
7. ROM PROBLEMS	F12 - 74LS138 H1 - 74LS08 ROM - F3 - F11
8. VERTICAL or HORIZONTAL SYNC PROBLEMS	A2 - 74LS00 A12 - 74LS02 B11 - 74LS08 B13 - 74LS02 B14 - 74LS02 C11 - 74LS04 C13 - 74LS51 C14 - 74LS32 D11 - 74LS161 D12 - 74LS161 D13 - 74LS161 D14 - 74LS161
9. GAME PADDLE PROBLEMS	F13 - 74LS138 H13 - 558 H14 - 74LS251
10. CASSETTE LOADING PROBLEMS	F13 - 74LS138 H14 - 744LS251 K12 - 741
11. CASSETTE SAVING PROBLEMS	F13 - 74LS138 K13 - 74LS74
12. SPEAKER PROBLEMS	A12 - 74LS02 B6 - 74LS257 B7 - 74LS257 B10 - 74LS74 C11 - 74LS04 F13 - 74LS138
13. PERIPHERAL CARD IN SLOT WON'T WORK	H2 - 74LS138 H12 - 74LS138

MOTHERBOARD MAP



```
 10  REM ####################
 20  REM #                  #
 30  REM #     APPLE PI     #
 40  REM #                  #
 50  REM # MYSTERY  PROGRAM #
 60  REM #                  #
 70  REM #   OF THE MONTH   #
 80  REM #                  #
 90  REM ####################
 100  DATA  71,82,69,69,84,73,78,7
      1,83,7,32,70,82,79,77,7,32,6
      5,80,80,76,69,7,32,80,73,7,3
      2,33,7
 110  HOME
 120  DIM OHMY(30)
 130  FOR GOSH = 1 TO 30
 140  READ OHMY(GOSH)
 150  NEXT
 160  VTAB 10: HTAB 8
 170  SPEED= 100
 180  FOR GOSH = 1 TO 30
 190  PRINT  CHR$ (OHMY(GOSH));
 200  NEXT
 210  SPEED= 255
 220  VTAB 23
 230  END
```

SOFT-PUZZLE



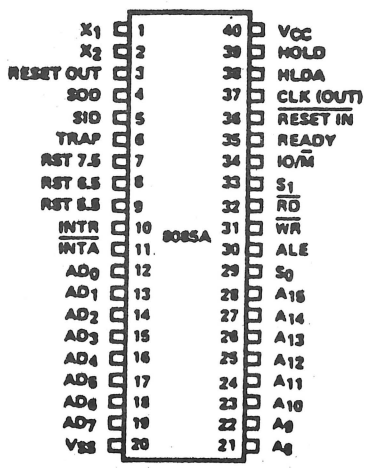
ACROSS CLUES

3. PROGRAMMING LANGUAGE FOR MICROS
5. SOMETHING PROGRAMMERS DRINK
7. WHAT YOUR COMPUTER WAS PACKED IN
9. PART OF A STRING
11. IC MANUFACTURER IN TEXAS
12. WHAT MAKES YOUR PROGRAMS CRASH
15. GOOP THEY POT COMPONENTS IN
16. GOVERNMENT PROGRAMMING LANGUAGE
17. DRAWINGS AND ILLUSTRATIONS
18. ONE THAT OPERATES A COMPUTER
20. A THOUSAND ANYTHING
25. SOMEONE WHO INSTRUCTS COMPUTERS
29. POPULAR TYPE OF COMPUTER GAME
32. NAME OF A NOTED FRENCH SCIENTIST
35. FIRST NAME OF A PRESIDENT
36. SAINT ----'S FIRE
37. THE OPPOSITE OF "OR"
39. RANDOM ACCESS MEMORY
40. PART OF A DISK TRACK
42. POPULAR DATA BASE MANAGER
45. DEFINE FILE (ABBR)
48. INPUT OR OUTPUT CHANNEL
49. SOMETHING YOU PUT TOGETHER
50. GOOD EXERCISE FOR RUNNERS
52. A FORTRAN LOOP
54. A PLACE TO BUY PROGRAMS AND BOOKS
59. EIGHT BITS
60. WHEN YOUR BILLS WERE DUE
61. ALONE OF ITS OR THEIR KIND

DOWN CLUES

1. IN THE MORNING
2. YOU SAW IT IN A MAGAZINE
3. WHAT YOU CAN PACK YOUR LUNCH IN
4. OTHER THAN FLOATING POINT (FP)
5. NUMBER SYSTEM USED IN COMPUTERS
6. CP/M EDITOR
7. THINGS THAT MAKE UP A BYTE
8. COMPANY THAT MAKES COMPUTERS AND COPIERS
10. ACCESS METHOD WITH AN INDEX
12. BITS PER SECOND
13. A COMPLETE COMPUTER ARRANGEMENT
14. ROUND THINGS TO STORE DATA ON
19. MAGNETIC MEDIA ON A SPOOL
21. SHAKEY CITY
22. MEMORY YOU CAN'T WRITE TO
23. THE OPPOSITE OF "NOR"
24. CIRCLE ON DISK
26. APPLE BASIC
27. MODULATOR/DEMODULATOR
28. DEVICE YOU TYPE THINGS ON
30. ORIGINAL SPREAD-SHEET PROGRAM
31. ACRONYM FOR INTEGRATED CIRCUIT
32. NOT AN AMATEUR
33. TO KEEP YOUR NEW PROGRAM
34. SOMETHING TO LOOK THINGS UP IN
38. PROGRAM TO CHANGE THINGS AROUND
41. PART OF THE APPLESOFT MON INSTR
43. DO YOU TAKE THIS COMPUTER?
44. ALRIGHT
46. A KIND OF DISK
47. TO IMPROVISE
51. THE COLOR SOME MONITORS ARE
53. NOT OFF
54. TO CAUSE TO BE IN SOME CONDITION
55. SOMETHING YOU PLAY WITH
56. PHONE COMPANY
57. ABBR. FOR SOMETHING WRONG
58. CP/M COMMAND TO DELETE SOMETHING

Puzzle created using CROSSWORD MAGIC



Microcomputer Academy Inc. is glad to announce their

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Microcomputer Academy has been formed to bring the best in high quality computer education to the public. Our classes are taught by qualified professionals in the field of microcomputers.

Some of the personal computer courses that we offer are:

PROGRAMMING LANGUAGES
- Basic
- Pascal
- Fortran
- Machine language
- Forth
- Basic for children
- Logo for children

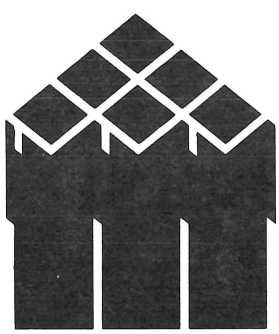
APPLICATIONS SOFTWARE
- Word Processing
- Data Base Management
- Electronic Spreadsheeting
- Home Management

COMPUTER LITERACY
- Systematized Thinking
- Hex - Binary - Decimal
- Overview of Microcomputers

COMPUTER HARDWARE
- Intro. to Computer Hardware
- Microcomputer Architecture and Design
- Fundementals of Troubleshooting and Repair

Enrollments are now being accepted.

Give us a call at 759-2122 to enroll or for more information about our classes.



MICROCOMPUTER ACADEMY, INC.

2149 S. CLERMONT
DENVER CO. 80222

ANYONE ELSE INTERESTED IN A DIRECTORY?

I wonder if others feel about Apple Pi as I do : the very success of the club has made it harder to meet and know people in the club. This is primarily due to the size of the meetings and the many worthwhile activities that take place there.

One of the things that I had hoped to get from the club was a chance to meet other people who had similar interests from whom I might be able to get some help from time to time. I am especially interested in SPREADSHEETS and INVESTING. One way people with similar interests might get together is through a DIRECTORY.

If you are interested in a directory and would like to be included , please fill out the attached QUESTIONAIRE.

ONLY THOSE PEOPLE WHO FILL OUT A QUESTIONAIRE WILL BE INCLUDED IN THE THE DIRECTORY. THEY WILL ALSO BE THE FIRST TO RECEIVE COPIES WHEN THE DIRECTORY IS COMPLETED.

APPLE PI DIRECTORY QUESTIONAIRE

(NOTE: ALL REPLIES MAY BE PUBLISHED. SUPPLY THE "REQUIRED" INFORMATION AND THAT "OPTIONAL" INFORMATION THAT YOU WOULD LIKE PUBLISHED)

(REQUIRED):NAME: _____

(REQUIRED):CITY: _____

(REQUIRED):ZIP CODE: _____

(OPTIONAL):STREET ADDRESS: _____

(OPTIONAL):TELEPHONE:HOME: _____

WORK: _____

A. WHAT ARE YOUR APPLE RELATED INTERESTS OR APPLICATIONS? (CHECK THE FOLLOWING MODIFIED INTERNATIONAL APPLE CORE SPECIAL INTEREST GROUP TITLES THAT APPLY)

PUT A DOUBLE CHECK IN FRONT OF THOSE SUBJECTS IN WHICH YOU WOULD BE WILLING TO HELP OTHER PEOPLE

1. ___ I ___ AGRICULTURE
2. ___ I ___ APPLE ///
3. ___ I ___ APPLE CLONES
4. ___ I ___ ASTRONOMY
5. ___ I ___ BUSINESS
6. ___ I ___ COMPUTER ART
7. ___ I ___ DATA MANAGEMENT
8. ___ I ___ EDUCATION
9. ___ I ___ ENGINEERING
10. ___ I ___ FAMILY
11. ___ I ___ GAMES
12. ___ I ___ HAM RADIO
13. ___ I ___ HANDICAPPED , AID TO
14. ___ I ___ HARDWARE
15. ___ I ___ HEALTH SERVICES
16. ___ I ___ INVESTING
17. ___ I ___ MATHEMATICS
18. ___ I ___ OFFICE AUTOMATION

OPERATING SYSTEMS

19. ___ I ___ DOS
20. ___ I ___ CP/M
21. ___ I ___ SOS

PROGRAMMING LANGUAGES

22. ___ I ___ BASIC
23. ___ I ___ FORTRAN
24. ___ I ___ MACHINE LANGUAGE
25. ___ I ___ PASCAL
26. ___ I ___ OTHER: _____
27. ___ I ___ SPOKEN LANGUAGES
28. ___ I ___ SPREADSHEETS
29. ___ I ___ TAXES
30. ___ I ___ TELECOMMUNICATIONS
31. ___ I ___ UTILITIES
32. ___ I ___ WORD PROCESSING
33. ___ I. ___ OTHER INTERESTS:

_____

B. WHAT WOULD YOU BE WILLING TO DO TO HELP APPLE PI CONTINUE TO SUCCEED ?

1. SERVE ON A NOMINATING COMMITEE FOR NEXT YEARS OFFICERS?
   YES____ NO____
2. ASSIST ONE OF THE PRESENT OFFICERS? YES____ NO____
3. RUN FOR AN OFFICE IN THE FUTURE? YES____ NO____
4. OTHER: _____

_____

C. WHAT IS YOUR PRIMARY REASON FOR BELONGING TO APPLE PI?

_____

Affix
postage
here

TO: Apple Pi User's Group
P. O. Box 17467
Denver, CO 80217